

Appendix B

Waste Determination and Disposition Forms

INEEL WASTE DETERMINATION & DISPOSITION FORM (WDDF)

General Instructions:
Waste Stream Name:
TAN Groundwater Treatment Facility Spent Ion Exchange Resin
Material Profile Number: 1938A.RI
WDDF Number (Optional):
TAN-500
Charge #: 1003177GB

SECTION I: PROCESS KNOWLEDGE EVALUATION (Completed by the generator with assistance from the Facility Representative)																																																																																															
<p>1. Waste Generation Location: Facility: TAN Building/Room: GWTF Area: Q1 I-07B If applicable: Contractor #:</p> <p>2. Process and Waste Description: (Attachment included) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>This waste was generated during the removal of the resin material from the ion exchange columns in the TAN Groundwater Treatment Facility (SWTF). The TAN GWTF is a pump and treat facility that was built to remediate groundwater plume caused by contamination in injection well TSF-05. The GWTF and its main processes are currently being decommissioned. The TAN groundwater pumped through the ion exchange columns has been shown to contain trichloroethylene (TCE) from a listed waste process prior to discharge to the groundwater. Therefore, the ion exchange columns are considered to be contaminated with the listed waste and will carry the F001 listed waste code. Since the groundwater is also considered to be radiologically contaminated, this material is characterized as mixed low-level waste.</p>																																																																																															
<p>3. Were any waste minimization activities a part of this process: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If Yes, provide description or reference.)</p>																																																																																															
<p>4. Generation Status: <input type="checkbox"/> Anticipated <input checked="" type="checkbox"/> Existing <input type="checkbox"/> Routine operations <input checked="" type="checkbox"/> Cleanup/Stabilization Activities <input checked="" type="checkbox"/> One Time Only <input type="checkbox"/> On-going <input type="checkbox"/> Secondary</p>																																																																																															
<p>5. Other generation information:</p>																																																																																															
<p>6. Physical Description (check all that apply): Color: black <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Organic Liquid <input type="checkbox"/> Aqueous Liquid <input type="checkbox"/> Sludge <input type="checkbox"/> Aerosol <input type="checkbox"/> Gas Cylinder <input type="checkbox"/> Multi-Layered</p>																																																																																															
<p>7. Sources used for process evaluation (e.g. MSDS, operational logs, procedures, analyses): analyses, process knowledge</p>																																																																																															
<p>8. Waste Characteristics: Note: The waste characteristics may not be known at time of initial determination. If required for treatment or characterization, those parameters will be identified at a later date.</p>																																																																																															
<input checked="" type="checkbox"/> All <input type="checkbox"/> Solids <input type="checkbox"/> Liquids																																																																																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">a. pH (aqueous only):</td> <td style="width: 10%;">Method:</td> <td style="width: 10%;">h. Asbestos:</td> <td colspan="3"></td> </tr> <tr> <td><input type="checkbox"/> < 2 <input type="checkbox"/> ≥ 12.5</td> <td><input checked="" type="checkbox"/> NA</td> <td><input checked="" type="checkbox"/> NA</td> <td colspan="3"></td> </tr> <tr> <td><input type="checkbox"/> > 2 or < 12.5</td> <td><input type="checkbox"/> Exact</td> <td><input type="checkbox"/> If yes, is it friable?</td> <td colspan="3"></td> </tr> <tr> <td colspan="6"> i. Pyrophoric (Water Reactive) </td> </tr> <tr> <td colspan="6"> j. Flammable Solid </td> </tr> <tr> <td colspan="6"> k. Total suspended solids < 1% </td> </tr> <tr> <td colspan="6"> l. Is total organic carbon < 1% </td> </tr> <tr> <td colspan="6"> m. Free liquids: If Yes, quantity > volume % </td> </tr> <tr> <td colspan="6"> n. Flaming Acid/Gases </td> </tr> <tr> <td colspan="6"> o. Pyrophoric (Air Reactive) </td> </tr> <tr> <td colspan="6"> p. PCBs: If Yes, provide concentrations (actual & stored) in composition tables. </td> </tr> <tr> <td colspan="6"> q. Oxidizer </td> </tr> <tr> <td colspan="6"> r. Treatment Residue </td> </tr> <tr> <td colspan="6"> s. Explosive </td> </tr> <tr> <td colspan="6"> t. Radioactive </td> </tr> </table>						a. pH (aqueous only):	Method:	h. Asbestos:				<input type="checkbox"/> < 2 <input type="checkbox"/> ≥ 12.5	<input checked="" type="checkbox"/> NA	<input checked="" type="checkbox"/> NA				<input type="checkbox"/> > 2 or < 12.5	<input type="checkbox"/> Exact	<input type="checkbox"/> If yes, is it friable?				i. Pyrophoric (Water Reactive)						j. Flammable Solid						k. Total suspended solids < 1%						l. Is total organic carbon < 1%						m. Free liquids: If Yes, quantity > volume %						n. Flaming Acid/Gases						o. Pyrophoric (Air Reactive)						p. PCBs: If Yes, provide concentrations (actual & stored) in composition tables.						q. Oxidizer						r. Treatment Residue						s. Explosive						t. Radioactive					
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<small>PCBs: If Yes, provide concentrations (actual & stored) in composition tables. 40 CFR 761.62(f) Sulfide ≥ 500 mg/kg Cyanide ≥ 250 mg/kg Treatment Residue</small>																																																																																															

INEEL WASTE DETERMINATION & DISPOSITION FORM (WDDF)

SECTION III WASTE DETERMINATION AND DISPOSITION (Completed by the WGS Technical Specialist)	
A. Waste Determination	
1. Is this a solid waste (per 40 CFR 261.2)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If No, attach regulatory citation)	
2. Is this a Hazardous Waste (per 40 CFR 261.3)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
3. Is waste excluded from regulation under 40 CFR 261.4? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Regulatory citation:	
4. Is waste subject to 40 CFR 268 regulations? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Is the waste a: <input type="checkbox"/> Waste Water or <input checked="" type="checkbox"/> Non Waste water.	
Is there a specified method of treatment? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, list the specified method:	
5. Is waste listed in Subpart D of 40 CFR 261? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, provide waste codes, regulated hazardous constituent(s), and an explanation of determination.)	
Attachment included: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Codes: This waste is F001 (listed for Trichloroethylene (TCE). Process knowledge and analytical results have shown TCE occurring in the ground water in amounts as much as 32 ppm. Analytical data obtained from sampling. Process knowledge indicates the source of the TCE is a solvent used in degreasing.	
6. Is waste characteristic per Subpart C of 40 CFR 261? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, provide waste codes, regulatory subcategory, and an explanation of determination.)	
Attachment included: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Codes:	
7. If hazardous, Is the waste excluded for recycling in accordance with 40 CFR 261.2(e)(1)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, regulatory citation:	
8. Is the waste mixed or low level? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, include attachment with isotopic information.)	
9. Is waste TSCA regulated for either of the following? PCBs: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Asbestos: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
B. Evaluation of Underlying Hazardous Constituents (UHCs)	
Does the waste require evaluation in accordance with 40 CFR 268.4(b)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If Yes, identify UHCs.) UHCs: Attachment included: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
C. Disposition and Data Gap Evaluation: (Attachment included: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No)	
1. Proposed Disposition (storage, treatment, disposal pathway): Land Disposal at Private Sector Subtitle C Landfill or the INEEL CERCLA Disposal Facility (ICDF) <input type="checkbox"/> SIP ID (if used only): ID-CERCLA-MW	
2. Will this waste be treated in a <90 storage area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If Yes, attach plan.) (Mixed and Hazardous Only)	
3. Is the information provided adequate for complete waste determination, management, transportation, treatment, and disposal of waste? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If No, identify additional information or analysis required.	
D. Verification requirements: (Attachments included: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No)	
1. Will verification be performed on this waste? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, describe the verification to be performed.	
2. What is the verification frequency?	
At Initial Storage Location: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Immediately Prior to Shipment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

INEEL WASTE DETERMINATION & DISPOSITION FORM (WDDF)

E. Packaging and Transportation Requirements (to be completed by P&T): Complete this section only if wastes are to be transported.

1. Is waste a DOT Regulated Hazardous Material? Yes No If Yes: DOT Primary Hazard: DOT Subsidiary Hazard:
2. Recommended Packaging:
3. Probable Basic Description (PSN, Hazard Class, DOT ID #, PG):
4. Other Information (special shipping conditions, etc.):
5. If containers are already generated, are they packaged correctly for the DOT hazard class? Yes No If No, list container required.

Packaging & Transportation Name Type/Printed		Packaging & Transportation Signature			Date
Summary of Waste Determination: <input type="checkbox"/> Hazardous (see codes listed above)		<input checked="" type="checkbox"/> Mixed Low Level (see codes listed above)	<input type="checkbox"/> Low Level	<input type="checkbox"/> Conditional Industrial	<input type="checkbox"/> Other (describe)

CERTIFICATIONS

I certify that the information in Section II of this form and the applicable attachments are fully disclosed and accurate. A good faith effort has been put forward to acquire and verify the information. Willful or deliberate omissions have not been made, and all known and suspected hazards have, to the best of my knowledge, been identified.

John Harrie
Lawrence Izzo
WGS Technical Specialist
Type/Printed
Signature
1/22/03

John Harrie
John Harrie
WGS Independent Reviewer Name
Type/Printed
Signature
1/22/03

John Harrie
Low Level Waste Hazardous Waste Determination Review Name
Type/Printed
Signature
Date
FEB 06

Additional Narrative Information (As Needed):

This is an updated revision of the previous waste determination of the spent IX resin. Previous spent IX resin consumers have been disconnected due to incineration at WEH. This waste determination was based on knowledge of Process and analytical data from TAN Multimedia/On Exchange/Activated Carbon sampling event WGS-031-02 (802-9002). The waste in its present storage location is regulated by CERCLA, when it is removed for treatment at a TSDF it becomes RCRA regulated. The waste stream is to be reviewed annually.

INTEL BASIC DETERMINATION & DISPOSITION FORM (WWUR)

General Instructions:

Waste Stream Name:

TAN GWTF LDR compliant sludge

WDDF Number (Optional):

TAN-670

Material Profile Number: 4304N

Change #: 10066/343

SECTION I: PROCESS KNOWLEDGE EVALUATION (Completed by the generator with assistance from the Facility Representative)							
1. Waste Generation Location: Facility: TAN	Building/Room: N/A	Area: QU1-07B	If applicable: Container #: _____	Type/size: _____			
2. Process and Waste Description: (Attachment Included: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No)	<p>This waste stream is comprised of sludge and sediment from the TAN Groundwater Treatment Facility (GWTF). This sludge came from the bottom of three different tanks in the GWTF. The tanks, along with the other GWTF components such as piping and cargo containers, were removed as part of a D&D action in February 2004. The material was removed from the tanks prior to decommissioning of the tanks. The groundwater that was stored in these tanks carries a RCRA listed waste code of F001 for Trichloroethylene (TCE). It is also considered radioactively contaminated, and therefore is considered mixed low-level waste (MLLW). This sludge will also carry the same F001 code and be considered MLLW. Corn cob absorbent material was used in the removal of this sludge to absorb any free liquids in the tanks. Small pieces of debris, such as PPE, are also mixed in with this waste stream. Since the levels of TCE in this waste stream are below the LDR treatment standard of 6 ppm, this waste will be LDR compliant and eligible for direct disposal. The planned pathway for this waste is direct disposal at the ICDF landfill.</p>						
3. Were any waste minimization activities a part of this process: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If Yes, provide description or reference.)							
4. Generation Status: <input type="checkbox"/> Anticipated <input checked="" type="checkbox"/> Existing	<input type="checkbox"/> Routine operations <input checked="" type="checkbox"/> Cleanup/Stabilization Activities <input checked="" type="checkbox"/> One Time Only <input type="checkbox"/> On-going <input type="checkbox"/> Secondary						
5. Other generation information: This waste stream has been already generated.							
6. Physical Description (check all that apply): Color: <input type="checkbox"/> Solid <input type="checkbox"/> Organic Liquid <input checked="" type="checkbox"/> Aqueous Liquid <input checked="" type="checkbox"/> Sludge <input type="checkbox"/> Aerosol <input type="checkbox"/> Gas Cylinder <input type="checkbox"/> Multi-layered							
7. Sources used for process evaluation (e.g. MSDS, operational logs, procedures, analyses): Analytical data							
8. Waste Characteristics: Note: The waste characteristics may not be known at time of initial determination. If required for treatment or characterization, these parameters will be identified at a later date.							
Liquids	Solids			All			
a. pH (aqueous only): <input type="checkbox"/> < 2 <input type="checkbox"/> ≥ 12.5 <input type="checkbox"/> > 2 or < 12.5	Method: <input checked="" type="checkbox"/> NA	n. Asbestos: <input type="checkbox"/> If yes, is it friable?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
b. Flash Point:	Method: <input checked="" type="checkbox"/> NA	i. Pyrophoric (Water Reactive)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	j. Flammable Solid	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
c. Total suspended solids <1%, d. Is total organic carbon <1%?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
e. Flaming Acid/Acid Gases	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	k. Free liquids: If Yes, quantity volume %	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA	r. Treatment Residue	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
f. PCBs: If Yes, provide concentrations (actual & source) in composition table							
g. PCBs Bulk Product? (40 CFR 761.62)?							
h. Sulfide ≥ 500 mg/kg							
i. Cyanide ≥ 250 mg/kg							
j. Oxidizer							

Waste Stream Name: **TAN GWTF LDR compliant sludge**

Material Profile Number: 4304N

1. Pyrophoric (Air Reactive)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	I. RCRA Debris (>60 mm) (> 50% by visual inspection) or non-RCRA Rubble	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA	s. Explosive	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA
2. Water Reactive	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA	II. Pyrophoric (Air Reactive)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA	I. Radioactive	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3. Waste Composition: (Must total 100%). Attachment included:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA	III. Halogens (Cl, F, Br)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA	IV. Halogens (Cl, F, Br)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA

Constituent	CAS No.	Analysis or PK	Range (If constituent is <1%, use mg/kg or mg/l, otherwise report in %)	From	To	Units	Used as a Solvent? (Y/N)	Comments
TCE	79-01-6	Analysis	0	0.026		mg/kg	Y	
solids	N/A	PK	63	97		vol %	N	
small debris	N/A	PK	0	2		vol %	N	
com cob absorbent	N/A	PK	3	5		vol %	N	

10. Radioisotopes: Are radioisotopes present? Yes, if Yes, refer to attachment No, If No, include signed form 435.02

SECTION II: PROBABLE WASTE TYPE: (Completed by the Facility Representative and used to assign waste technical specialists and for appropriate management until final waste determination is made.)

Based on evaluation of the process and available data the waste type indicated is (check all that apply):

<input type="checkbox"/> Hazardous Only	<input checked="" type="checkbox"/> Mixed	<input type="checkbox"/> Radioactive Only	<input type="checkbox"/> Conditional Industrial	<input type="checkbox"/> Used On Oil
<input type="checkbox"/> Material Exchange	<input type="checkbox"/> Lab Pack	<input type="checkbox"/> Non-conditional Industrial	<input type="checkbox"/> TSCA	<input type="checkbox"/> Other - Describe:
<input type="checkbox"/> Recyclable: <input type="checkbox"/> Non Radioactive Lead (>99+ % Lead)	<input type="checkbox"/> Lead Batteries	<input type="checkbox"/> Silver	<input type="checkbox"/> RCRA Scrap metal	<input type="checkbox"/> Other - Describe:

Indicated Waste Codes: F001

CERTIFICATION

I certify that the information in Section I of this form and the applicable attachments are fully disclosed. A good faith effort has been put forward to acquire and verify the information. Willful or deliberate omissions have not been made, and all known and suspected hazards have, to the best of my knowledge, been identified. The WGS Facility Representative, based on information provided, has assigned a probable waste type in Section II.

Lee Nelson Generator Name Typed/Printed	Signature	5/18/04
Marshall Marfor WGS Facility Representative Name Typed/Printed	Signature	5/18/04

SECTION III WASTE DETERMINATION AND DISPOSITION (Completed by the WGS Technical Specialist(s))		
A. Waste Determination		
1. Is this a solid waste (per 40 CFR 261.2)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If No, attach regulatory citation)		
2. Is this a Hazardous Waste (per 40 CFR 261.3)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
3. Is waste excluded from regulation under 40 CFR 261.4? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If Yes, Regulatory citation:		
4. Is waste subject to 40 CFR 268 regulations? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If Yes, is the waste at: <input type="checkbox"/> Waste Water or <input checked="" type="checkbox"/> Non Wastewater.		
Is there a specified method of treatment? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If Yes, list the specified method:		
5. Is waste listed in Subpart D of 40 CFR 261? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If Yes, provide waste codes, regulated hazardous constituent(s), and an explanation of determination.)		
Attachment Included: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Codes: F001 This waste is F001 listed for Trichloroethylene (TCE). TCE has been detected in the TAN groundwater at concentrations up to 32 ppm. However, analytical data shows the levels of TCE are below LDR regulatory limit of 6 ppm.		
6. Is waste characteristic per Subpart C of 40 CFR 261? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If Yes, provide waste codes, regulatory subcategory, and an explanation of determination.)		
Attachment Included: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Codes:		
7. If hazardous, is the waste excluded for recycling in accordance with 40 CFR 261.2(e)(1)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If Yes, regulatory citation:		
8. Is the waste mixed or low level? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If Yes, include attachment with Isotopic information.)		
9. Is waste TSCA-regulated for either of the following? PCBs: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Asbestos: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
B. Evaluation of Underlying Hazardous Constituents (UHCs)		
Does the waste require evaluation in accordance with 40 CFR 268.45? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If Yes, Identify UHCs.) UHCs: Attachment Included: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
C. Disposition and Data Gap Evaluation: (Attachment Included: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No)		
1. Proposed Disposition (Storage, treatment, disposal pathway): Direct disposal at (CODF) <input type="checkbox"/> STP ID (mixed only): D-CERCLA-MW		
2. Will this waste be treated in a <50 storage area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If Yes, attach plan.) (Mixed and Hazardous Only)		
3. Is the information provided adequate for complete waste determination, management, transportation, treatment, and disposal of waste? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If No, identify additional information or analysis required.)		
D. Verification requirements: (Attachments Included: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No)		
1. Will verification be performed on this waste? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If Yes, describe the verification to be performed. ICDF verification sampling		
At Initial Storage Location: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Immediately Prior to Shipment. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
2. What is the verification frequency? one-time		

E. Packaging and Transportation Requirements (To be completed by P&T): Complete this section only if wastes are to be transported.				
1. Is waste a DOT Regulated Hazardous Material? <input type="checkbox"/> Yes <input type="checkbox"/> No	If Yes: DOT Primary Hazard:	DOT Subsidiary Hazard:		
2. Recommended Packaging:				
3. Probable Basic Description (PSN, Hazard Class, DOT ID #, PG):				
4. Other information (special shipping conditions, etc.):				
5. If containers are already generated, are they packaged correctly for the DOT hazard class? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, list container required.				

Summary of Waste Determination:		Packaging & Transportation		
Packaging & Transportation Name Typed/Printed	Date Signature			
<input type="checkbox"/> Hazardous (see codes listed above)	<input checked="" type="checkbox"/> Mixed Low-Level (see codes listed above)	<input type="checkbox"/> Low-Level Industrial	<input type="checkbox"/> Conditional Industrial	<input type="checkbox"/> Other (describe)

CERTIFICATIONS

I certify that the information in Section III of this form and the applicable attachments are fully disclosed and accurate. A good faith effort has been put forward to acquire and verify the information. Willful or deliberate omissions have not been made, and all known and suspected hazards have, to the best of my knowledge, been identified.

Larry Izzo WGS Technical Specialist Typed/Printed	<i>Larry Izzo</i> WGS Technical Specialist Signature	5/12/04 Date
John Harris WGS Independent Reviewer Typed/Printed	<i>John Harris</i> WGS Independent Reviewer Signature	5/12/04 Date

Low Level Waste Hazardous Waste Determination Review Name Typed/Printed	Low Level Waste Hazardous Waste Determination Review Signature	Date
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Additional Narrative Information (As Needed):

The wastes will at least need to be repackaged for shipping. The bottles containing the sludge are loose inside a 55 gallon drum.

General Instructions:**Waste Stream Name:** OU1-7B LDR Compliant Debris**Material Profile Number:** 2473.R1**WDDF Number (Optional):** TAN-637**Charge #:** 100867343**Waste Stream Contacts**

Contact:	Name	E-Mail	Phone	Pager	MS	Contact:	Name	E-Mail	Phone	Pager	MS
Generator:	Lee Nelson	lonelson	6-3093		3940	Technical Specialist:	Larry Izzo	izzo@r	6-3719	7730	9210
Facility Rep:	Marshall Marlor	marmlm	6-2581	6610	9210	Independent Reviewer:	John Harris	jharris	6-3461	5324	3921

SECTION I: PROCESS KNOWLEDGE EVALUATION (Completed by the generator with assistance from the Facility Representative)**1. Waste Generation Location:** Facility, TAN

Building/Room: GWTF

Area: OU1-07B If applicable: Container #: _____

2. Process and Waste Description: (Attachment Included: Yes No)

This waste stream consists of LDR compliant debris generated during the maintenance and installation of TAN ground water wells, decommissioning the Ground Water Treatment Facility (GWTF) tent, and contaminated debris from the In Situ Bioremediation (ISB) field laboratory. This work was performed under a CERCLA remedial action for Operable Unit 1-07B. Wastes include re-sized tanks, piping (carbon steel, galvanized, PVC, and stainless steel), valves, pumps and parts, flanges, fittings, plastic hoses, electrical wiring and cabling, poly tubing, carboys, empty bottles, sampling equipment, PPE, rags, and wipes. This debris came into direct contact with an F001 listed waste source, the contaminated groundwater at TAN, and therefore carries the F001 RCRA listed code. However, based on evaluation of analytical data, process knowledge, and potential for organic contamination still associated with these items; the waste is determined to meet LDR treatment standards (see attached comments and hand copy profile for supporting documentation). Since the ground water that these items came into contact with is radiologically-contaminated, this debris is being managed as mixed low-level waste. Inorganic TCLP metals analysis was also performed; concentrations detected were below RCRA regulatory levels.

3. Were any waste minimization activities a part of this process: Yes No (If Yes, provide description or reference.)
NIEEL/EXT-03.02/285 Rev 0 section 5.5

4. Generation Status: Anticipated Existing Routine operations

Cleanup/Stabilization Activities One Time Only On-going Secondary

5. Other generation information:

Physical Description (check all that apply): Color: Solid Organic Liquid Aqueous Liquid Sludge Aerosol Gas Cylinder Multi-Layered

6. Sources used for process evaluation (e.g. MSDS, operational logs, procedures, analyses): Analytical data/ L&W closure reports, ASAP's, process knowledge (see attached sheets).

7. Waste Characteristics: Note: The waste characteristics may not be known at time of initial determination. If required for treatment or characterization, those parameters will be identified at a later date.

Liquids	Solids	All
a. pH (aqueous only):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA	In PCBs? If Yes, provide concentrations (actual & source) in composition table.
<input type="checkbox"/> < 2 <input type="checkbox"/> ≥ 12.5 <input type="checkbox"/> > 2 or < 12.5	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA	PCBs Bulk Product? (40 CFR 761.62)?
b. Flash Point:	<input checked="" type="checkbox"/> NA Method:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
c. Total suspended solids <1%:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA	i. Pyrophoric (Water Reactive) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
d. Is total organic carbon <1%:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA	j. Flammable Solid <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
		k. Oxidizer <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA

Waste Stream Name: OU1-7B LDR Compliant Debris**Material Profile Number:** 2473.R1

e. Fuming Acid/Acid Gases	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	k. Free liquids: If Yes, quantity volume %	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA	r. Treatment Residue	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA
f. Pyrophoric (Air Reactive)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	l. RCRA Debris (>60 mm) (≥ 50% by visual inspection) or non-RCRA Rubble	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	s. Explosive	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA
g. Water Reactive	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA	m. Pyrophoric (Air Reactive)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA	t. Radioactive	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
11. Waste Composition: (Must total 100%)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA										

Constituent	CAS No.	Analysis or PK	(If constituent is <1%, use mg/kg or mg/L, otherwise report in %)	Range From	To	Units	Used as a Solvent? (Y/N)	Comments
carbon, galvanized, pvc, and stainless steel piping and parts of various dimensions	PK	85	90	wt%			N	
carboys or empty containers, electrical cords, cables and fillings, HDPE Plastic	PK	5	10	wt%			N	
PPE, wipes, tape, bag filter rings, buckets, plastic bottles and rubber Hose	PK	5	10	wt%			N	
pumps, flanges, valves	PK	5	10	wt%			N	
TCE	79-01-6	PK	0	0.91	ppm	Y		
absorbent material	PK	0.01	0.02	wt%			N	

12. Radiosotopes: Are radiosotopes present? Yes, If Yes, refer to attachment. No, If No, include signed form 435.02**SECTION II: PROBABLE WASTE TYPE:** (Completed by the Facility Representative and used to assign waste technical specialist and for appropriate management until final waste determination is made.)

based on evaluation of the process and available data the waste type indicated is (check all that apply):

<input type="checkbox"/> Hazardous Only	<input checked="" type="checkbox"/> Mixed	<input type="checkbox"/> Radioactive Only	<input type="checkbox"/> Conditional Industrial	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Material Exchange	<input type="checkbox"/> Lab Pack	<input type="checkbox"/> Non-conditional Industrial	<input type="checkbox"/> TSCA	<input type="checkbox"/> Other - Describe:
<input type="checkbox"/> Recyclable:	<input type="checkbox"/> Non Radioactive Lead (>99+ % Lead)	<input type="checkbox"/> Lead Batteries	<input type="checkbox"/> Silver	<input type="checkbox"/> RCRA Scrap metal

Indicated Waste Codes: F001

Waste Stream Name: **OU1-7B LDR Compliant Debris**

Material Profile Number: **2473.R1**

CERTIFICATION

I certify that the information in Section I of this form and the applicable attachments are fully disclosed. A good faith effort has been put forward to acquire and verify the information. Willful or deliberate omissions have not been made, and all known and suspected hazards have, to the best of my knowledge, been identified. The WGS Facility Representative, based on information provided, has assigned a probable waste type in Section II.

Lee Nelson Generator Name Typed/Printed	<i>Larry S. Lee Nelson</i> Signature	3/18/04 Date
Marshall Marion WGS Facility Representative Name Typed/Printed	<i>Marshall Marion</i> Signature	3/18/04 Date

SECTION III WASTE DETERMINATION AND DISPOSITION (Completed by the WGS Technical Specialist(s))

A. Waste Determination

1. Is this a solid waste [per 40 CFR 261.2]? Yes No (If No, attach regulatory citation)
2. Is this a Hazardous Waste [per 40 CFR 261.3]? Yes No
3. Is waste excluded from regulation under 40 CFR 261.4? Yes No If Yes, Regulatory citation:
4. Is waste subject to 40 CFR 268 regulations? Yes No If Yes, is the waste a: Waste Water or Non Wastewater.
5. Is there a specified method of treatment? Yes No If Yes, list the specified method:
6. Is waste listed in Subpart D of 40 CFR 261? Yes No (If Yes, provide waste codes, regulated hazardous constituent(s), and an explanation of determination.) Attachment included: Yes No Codes: This waste will be F001 listed for Trichloroethylene (TCE). The groundwater at TAN is known to be contaminated from a known waste source used as a degreasing solvent. This gives the groundwater a concentration of TCE greater than 5 ug/L, a F001 listing. Since the contaminated groundwater that came in contact with the debris is greater than 5 ug/L, the debris will be F001 listed waste.
7. Is hazardous, is the waste excluded for recycling in accordance with 40 CFR 261.2(e)(1)? Yes No If Yes, regulatory Citation:
8. Is the waste mixed or low level? Yes No (If Yes, include attachment with isotopic information)
9. Is waste TSCA regulated for either of the following? PCBs: Yes No Asbestos: Yes No

B. Evaluation of Underlying Hazardous Constituents (UHCs)

Does the waste require evaluation in accordance with 40 CFR 268.48? Yes No (If Yes, identify UHCs.) UHCs: Attachment included: Yes No

C. Disposition and Data Gap Evaluation: (Attachment Included: Yes No)

1. Proposed Disposition (Storage, treatment, disposal pathway): Direct Disposal at the COF STP ID (mixed only): ID-CERCLA-MW
2. Will this waste be treated in a <90 storage area? Yes No (If Yes, attach plan.) (Mixed and Hazardous Only)
3. Is the information provided adequate for complete waste determination, management, transportation, treatment, and disposal of waste? Yes No If No, identify additional information or analysis required.

D. Verification requirements: (Attachments Included: Yes No)

1. Will verification be performed on this waste? Yes No If Yes, describe the verification to be performed. Physical verification of waste inventory is done on each container prior to packaging.

- At Initial Storage Location: Yes No Immediately Prior to Shipment: Yes No
2. What is the verification frequency? one-time only for each container

E. Packaging and Transportation Requirements (to be completed by P&T): Complete this section only if wastes are to be transported.			
1. Is waste a DOT Regulated Hazardous Material? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes: DOT Primary Hazard:	DOT Subsidiary Hazard:		
2. Recommended Packaging:			
3. Probable Basic Description (PSN, Hazard Class, DOT ID #, PG):			
4. Other information (special shipping conditions, etc.):			
5. If containers are already generated, are they packaged correctly for the DOT hazard class? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, list container required.			

Summary of Waste Determination:		Packaging & Transportation	
Name	Typed/Printed	Name	Signature
<input type="checkbox"/> Hazardous (see codes listed above)		<input checked="" type="checkbox"/> Mixed Low-Level (see codes listed above)	<input type="checkbox"/> Low-Level <input type="checkbox"/> Conditional Industrial <input type="checkbox"/> Other (describe)

CERTIFICATIONS

I certify that the information in Section III of this form and the applicable attachments are fully disclosed and accurate. A good faith effort has been put forward to acquire and verify the information. Willful or deliberate omissions have not been made, and all known and suspected hazards have, to the best of my knowledge, been identified.

Larry Izzo	WGS Technical Specialist Name Typed/Printed	<i>Larry Izzo</i>	WGS Technical Specialist Signature	2/13/04
John Harris	WGS Independent Reviewer Name Typed/Printed	<i>John Harris</i>	WGS Independent Reviewer Signature	2/16/04

Low Level Waste Hazardous Waste Determination Review Name Typed/Printed	Low Level Waste Hazardous Waste Determination Review Signature	Date
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Additional Narrative Information (As Needed):

This WDJF includes attachments that show statistical calculations of sample data and process knowledge data. These calculations include the average, standard deviation, standard error, and 95% upper confidence limit. These values are used to populate the analytical concentrations in the WTS waste profile. By attaching these calculation sheets to this WDJF, it ensures that they will be reviewed by the Independent Reviewer prior to signing off.

General Instructions:**Waste Stream Name:****TAN Groundwater Field Lab. Analytical Residuals (F001)****WDDF Number (Optional):** OU1-07B GWTF 001**Charge #:** 3XN'2CA4F05**Material Profile Number:** 3319N**Waste Stream Contact^a**

Contact:	Name	E-Mail	Phone	Pager	MS	Contact:	Name	E-Mail	Phone	Pager	MS
Generator:	Rita's * anoll	carrie	6-746	3551	3940	Technical Specialist	Lawrence P. [220]	[220]fr	6-3719	7730	9210
Facility Rep.:	Joel Duling	dulijw	6-1994	7095	4142	Independent Reviewer:	John D. Harris	[220]fr	6-3461	5324	3921

SECTION I: PROCESS KNOWLEDGE EVALUATION (Completed by the generator with assistance from the Facility Representative)**1. Waste Generation Location:** Facility: TAN Building/Room: GWTF**2. Process and Waste Description** (Attachment Included: Yes No)

This waste will be generated at the Groundwater Treatment Facility (GWTF) Field Laboratory. Water samples will be collected and analyzed to support the TAN Groundwater In-Situ Erosion Removal Treatability Study. This waste stream will include unaltered excess samples, utilized samples, and rinsate from the following analysis: 1) Dissolved oxygen; 2) Carbon dioxide; 3) Iron; 4) Ammonia; 5) Phosphate; 6) Alkalinity; 7) Bromide; 8) BART; 9) Iodide; 10) Hydrolab standards and rinsate; 11) bleach and bleach rinsate. The waste will be generated in support of a CERCLA action and will be stored at the GWTF CERCLA Waste Storage Area (CSWA). The waste will be F001 Listed with no "D" waste codes.

NOTE: A nickel nitrate solution may be used when sulfide interference exists in the Bromide and iodide analyses. In this case, the rinsate from these analyses will be included in the waste stream covered by material profile 3320N.

3. Were any waste minimization activities a part of this process: Yes No (If Yes, provide description or reference.)

Care is taken to use only the amount of materials required to correctly perform the analysis.

4. Generation Status: Anticipated Existing Routine operations Cleanup/Stabilization Activities One Time Only On-going Secondary**5. Other generation information:** This waste will be generated to support of a CERCLA clean-up**6. Physical Description (Check all that apply):** Color: various Solid Organic Liquid Aqueous Liquid Sludge Aerosol Gas Cylinder Multi-Layered

/ Sources used for process evaluation (e.g. MSDS, operational logs, procedures, analyses): "Review of laboratory procedures, Test Kit instructions and MSDSs, and "Hazardous Waste Determination OU 1-07B TAN Groundwater Remediation Field Lab Residuals Bioremediation Treatability Study" prepared by Michael D. Jorgensen.

8. Waste Characteristics: Note: The waste characteristics may not be known at time of initial determination. If required for treatment or characterization, those parameters will be identified at a later date.

Liquids	Solids	All
a. pH (aqueous only): <input type="checkbox"/> < 2 <input type="checkbox"/> 2 or < 12.5 <input checked="" type="checkbox"/> 12.5	Method: Process Knowledge <input type="checkbox"/> Exact <input checked="" type="checkbox"/> If NA	i. Asbestos: if yes, is it friable? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
b. Flash Point:	<input checked="" type="checkbox"/> If NA	ii. PCBs: If Yes, provide concentrations (actual & source) in composition table <input type="checkbox"/> PCBs Bulk Product? (40 CFR 761.62)?
c. Total suspended solids <1% d. Is total organic carbon <1%	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	o. Sulfide ≥ 500 mg/kg p. Cyanide ≥ 250 mg/kg q. Oxidizer

Waste Stream Name:

TAN Groundwater Field Lab. Analytical Residuals (E001)

Material Profile Number: 3319N

CERTIFICATION

I certify that the information in Section I of this form and the applicable attachments are fully disclosed. A good faith effort has been put forward to acquire and verify the information. Willful or deliberate omissions have not been made, and all known and suspected hazards have, to the best of my knowledge, been identified. The WGS Facility Representative, based on information provided, has assigned a probable waste type in Section II.

Generator Name Typed/Printed	Riana Carroll	Date Signature
WGS Facility Representative Name Typed/Printed	Joel Duling	WGS Facility Representative Signature

SECTION III WASTE DETERMINATION AND DISPOSITION (Completed by the WGS Technical Specialist)

A. Waste Determination

1. Is this a solid waste (per 40 CFR 261.2)? Yes No (If No, attach regulatory citation)
2. Is this a Hazardous Waste (per 40 CFR 261.3)? Yes No
3. Is waste excluded from regulation under 40 CFR 261.4? Yes No If Yes, Regulatory citation:
4. Is waste subject to 40 CFR 266 regulations? Yes No If Yes, is the waste a: Waste Water or Non Wastewater.
5. Is there a specified method of treatment? Yes No If Yes, list the specified method:
(Attachment included) Yes No (If Yes, provide waste code, regulated hazardous constituent(s), and an explanation of determination.)
6. Is waste characteristic of Subpart C of 40 CFR 261? Yes No (If Yes, provide waste codes, regulatory subcategory, and an explanation of determination.)
Attachment included: Yes No Codes: None
7. If hazardous, is the waste excluded for recycling in accordance with 40 CFR 261.2(e)(1)? Yes No If Yes, regulatory Citation:
8. Is the waste mixed at low level? Yes No (If Yes, include attachment with isotopic information.)
9. Is waste TSCA regulated for either of the following? PCBs: Yes No Asbestos: Yes No

B. Evaluation of Underlying Hazardous Constituents (UHCs)

Does the waste require evaluation in accordance with 40 CFR 260.4(b)? Yes No (If Yes, identify UHCs) UHCs: None Attachment included: Yes No

C. Disposition and Data Gap Evaluation: (Attachments Included: Yes No)

- | | |
|--|--------------------------------|
| Proposed Disposition (Storage, Treatment, disposal pathway): Returned to TAN Groundwater via New Pump and Treat Facility (NPTF) or INEEL Off-Site contracted facility | STP ID (mixed only): INEEL 1yr |
| 2. Will this waste be treated in a <50 storage area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If Yes, attach plan.) (Mixed and Hazardous Only) | |
| 3. Is the information provided adequate for complete waste determination, management, transportation, treatment, and disposal of waste? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, identify additional information or analysis required. | |

D. Verification requirements: (Attachments included: Yes No)

1. Will verification be performed on this waste? Yes No If Yes, describe the verification to be performed. At time of packaging

- | | |
|--|--|
| At Initial Storage Location: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Immediately Prior to Shipment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 2. What is the verification frequency? When generated | |

E. Packaging and Transportation Requirements (to be completed by P&T): Complete this section only if wastes are to be transported.						
1. Is waste a DOT Regulated Hazardous Material? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes: DOT Primary Hazard: Class 9	DOT Subsidiary Hazard: Trace Contaminants					
2. Recommended Packaging: Steel drum						
3. Probable Basic Description (PSN, Hazard Class, DOT ID #, PG): Hazardous Waste, Liquids, N.O.S., (F001), 9, UN3082 AG/N						
4. Other Information (special shipping conditions, etc.): Leakproof Spec. Containers						
5. If containers are already generated, are they packaged correctly for the DOT hazard class? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If No, list container required						
Lance L. NATE Packaging & Transportation Name Typed/Printed	8/3/02 Packaging & Transportation Signature					
Summary of Waste Determination:	<input type="checkbox"/> Hazardous (see codes listed above)	<input checked="" type="checkbox"/> Mixed Low-Level (see codes listed above)	<input type="checkbox"/> Low-Level	<input type="checkbox"/> Conditional	<input type="checkbox"/> Industrial	<input type="checkbox"/> Other (describe)

CERTIFICATIONS

I certify that the information in Section III of this form and the applicable attachments are fully disclosed and accurate. A good faith effort has been put forward to acquire and verify the information. Willful or deliberate omissions have not been made, and all known and suspected hazards have, to the best of my knowledge, been identified.

Lawrence P. Izzo WGS Technical Specialist Typed/Printed	8-15-02 WGS Technical Specialist Signature
John D. Harris WGS Independent Reviewer Typed/Printed	8-14-02 WGS Independent Reviewer Signature
Low Level Waste Hazardous Waste Determination Review Name Typed/Printed	Low Level Waste Hazardous Waste Determination Review Signature

Additional Narrative Information (As Needed):

This waste determination was based on knowledge of Process, Test Kit Instructions, Test Kit MSDSs, and internal report "Hazardous Waste Determination CII 1-07B TAN Groundwater Remediation Field Lab, Residuals Bioremediation Treatability Study" prepared by Michael D. Jorgensen, Lance N. Peterson, Robert C. Starr. The waste at its present storage location is regulated by CERCLA, when it is removed and sent to a TSFO for treatment it becomes regulated by RCRA. The waste stream is to be reviewed annually.